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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,987	01/29/2004	Christopher J. Edge	90058	5342

1333 7590 11/21/2005

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EXAMINER

LUU, MATTHEW

ART UNIT PAPER NUMBER

3663

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/767,987	Applicant(s) EDGE, CHRISTOPHER J.	
	Examiner LUU MATTHEW	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/27/04 & 4/29/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh (5,754,682) in view of Holub et al (6,459,425).

Regarding claim 1, Katoh discloses (Figs. 5, 6 and 7) a method comprising applying selective chromaticity corrections to device-independent coordinates using at least one linear correction function. See column 6, lines 43-54; column 7, lines 21-47; column 13, lines 1-65; and column 15, lines 11-56.

The only difference between the disclosure of Katoh and the claimed invention is that claim 1 requires "piecewise" correction function.

However, Holub discloses the "piecewise" linear function (Column 38, lines 22-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the "piecewise" linear function of Holub into the chromaticity correcting system of Katoh to provide the smoothness of contrast and accuracy of color correction.

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Regarding claim 2, Katoh further discloses (Fig. 7) the linear device-dependent coordinates (D8, CMYK) associated with an output device (printer 4).

Claim Rejections - 35 USC § 103

Claims 3-12 and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh in view of Holub as applied to claims 1-2 above, and further in view of Gindele et al (6,594,388).

Regarding independent claims 3, 4, 5 and 31, note the rejection as set forth above with respect to claim 1.

The only difference between the disclosure of Katoh and the claimed invention is that claims 3, 4, 5 and 31 require correction of chromaticity in the color boundaries or regions.

However, Gindele discloses (Figs. 16 and 17) correction of chromaticity in the color boundaries or regions (56-60). See column 17, lines 30-63; and column 21, line 32 to column 22, line 12.

It would have been obvious to the person of ordinary skill in the art to use the correction of color values in particular regions of Gindele into the chromaticity correcting system of Katoh to provide the smoothness of contrast and accuracy of color correction in a color space.

Furthermore, Gindele discloses (Figs. 16 and 17) correction of chromaticity in the color boundaries or regions (56-60), which can be considered as a group of regions (56-60).

Katoh further discloses (Fig. 2) each group of color spaces (RGB) and (ZYX) can be considered as a group corresponding to a different region of color in a device-dependent coordinates (RGB) and device-independent coordinates (XYZ) (which reads on the limitations of claim 3).

Regarding claims 6 and 32, Katoh discloses (Figs. 5, 6 and 7) a method comprising applying selective chromaticity corrections to device-independent coordinates using at least one linear correction function. See column 6, lines 43-54; column 7, lines 21-47; column 13, lines 1-65; and column 15, lines 11-56. Furthermore, it is well known in the art that linear function has correction coefficients or factors.

Furthermore, Gindele also mentions the correction factors (chroma ratio) (Column 22, lines 7-13).

Regarding claims 7-8 and 33-34, Katoh discloses (Fig. 2) a linear device-dependent coordinates (RGB).

Regarding claims 9-11 and 35-37, Katoh discloses (Fig. 2) a linear device-independent tri-stimulus space (XZY).

Regarding claims 12 and 38, Katoh discloses (Fig. 2) the device-dependent coordinate space comprise RGB and CMY (printer 44).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-J. Cooper (US 2002/0196350) teaches a piecewise linear function for chroma correction (Sections 63 and 65).

Usui et al (5,185,850) discloses (Figs. 5-7) a group of color regions.

-Granger (6,005,968) discloses a technique for calibrating a scanner in device-dependent color space (RGB) and device-independent color space (XYZ).

Takahashi et al (5,710,872) disclose a color image-recording device that prevents extreme changes in color at the boundary of the selected color when the hue, value and chroma are color adjusted selectively but not as whole.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACK KEITH can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Luu

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a large, stylized initial 'M'.

MATTHEW LUU
PRIMARY EXAMINER